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The air quality in Missouri generally meets EPA's accepted levels. The St. Louis area has historically violated the one-hour **ozone** standard, but at the end of the 2002 **ozone** season, it met the standard (see Page 9). A small area near a **lead smelter** in Jefferson County exceeds federal standards for airborne **lead** (see Page 26) but has been making progress in lowering ambient air **lead** levels.

EPA will soon designate areas as **attainment** or nonattainment for the eight-hour **ozone** and **PM_{2.5}** standards. Both St. Louis and Kansas City recorded **exceedances** of the

eight-hour standard and will be considered for nonattainment. St. Louis also has one site that is currently over the **PM_{2.5}** standard.

One site in St. Louis and a small site near Joplin are in violation of the 24-hour **PM₁₀** standard. A rare **exceedance** of the **carbon monoxide** standard was recorded in St. Louis late in 2002. EPA and the department will make a decision on whether this incident constitutes a violation after conducting an investigation.

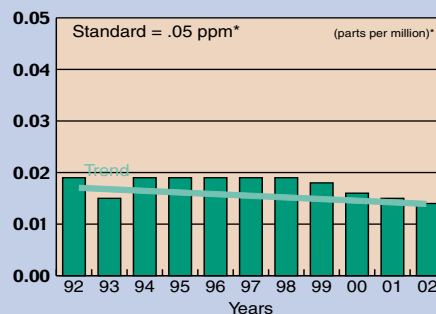
Air Quality Trends

The department monitors air concentrations of the six criteria pollutants

Air Quality Trends at Selected Locations

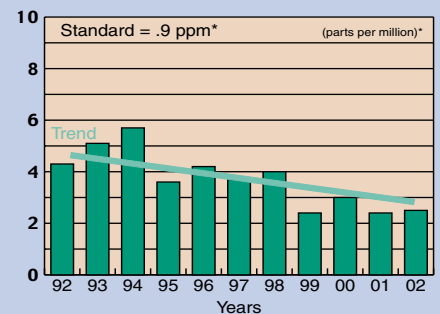
NITROGEN DIOXIDE ANNUAL MEAN, ppm

South Lindbergh 1992-2002



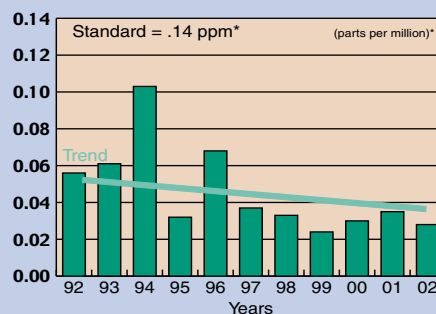
CARBON MONOXIDE 2nd 8-hr MAX, ppm

St. Ann/Breckenridge Hills 1992-2002



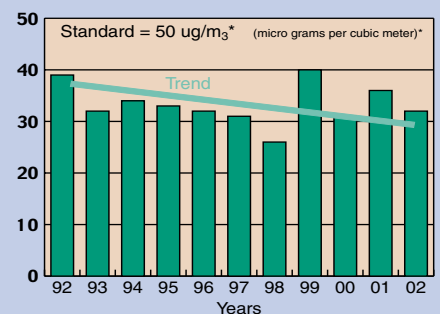
SULFUR DIOXIDE 2nd 24-hr MAX, ppm

South Charleston, Springfield 1992-2002



PM₁₀ ANNUAL MEAN, ug/m³

St. Joseph Pump Station 1992-2002



at selected locations throughout the state. Most areas of the state are in **attainment** of the air quality standards.

The graphs on Page 16 are representative of general trends of ambient air data from four pollutants including **CO**, **NO_x**, **SO_x** and **PM₁₀**. See Major Air Pollutants on Page 13 for more information on sources of these pollutants and their health effects. The overall trend as shown by the four graphs on Page 16 is improved air quality.

Emission Trends

The emission trends graphs that follow show the total emissions of the criteria pollutants that Missouri facilities reported for the years 1993

to 2001. As reflected in the graphs, facilities have generally reported decreased emissions. Since 1993, facilities reduced **PM₁₀** emissions 59 percent, while VOC emissions dropped nearly 48 percent. Sulfur oxide emissions dropped 40 percent, **NO_x** emissions dropped 31 percent and there is a 30 percent decrease in **lead** emissions. **CO** is the only pollutant to show an increase in emissions.

NO_x emissions are expected to decline between now and 2007 due to EPA's **NO_x State Implementation Plan (SIP)** call. If published for Missouri, the **SIP** call will require a reduction in **NO_x** emissions of approximately 35 percent from the eastern one-third of Missouri.

Missouri has a statewide **NO_x** rule that will achieve slightly more emission reductions from electrical generating units in the entire state.

The tables below show relative contributions from major industrial sources.

Annual Reported Emissions

Top Point Emission Sources for PM ₁₀	Tons of PM ₁₀ contributed by these sources in 2001	Percent of total
(1) Electricity Generation	4,728.38	21.6%
(2) Charcoal Crushing	2,590.99	11.8%
(3) Cement Production	2,039.93	9.3%
(4) Sand and Gravel Processing	1,835.96	8.4%
(5) Lime Storage	1,636.78	7.5%
(6) All Others	9,055.93	41.4%
Total:	21,887.97	

Top Point Emission Sources for SO _x	Tons of SO _x contributed by these sources in 2001	Percent of total
(1) Electricity Generation	258,069.84	67.9%
(2) Lead Refining	80,250.91	21.1%
(3) Cement Production	10,900.08	2.9%
(4) Beer Production	6,839.50	1.8%
(5) Lime and Limestone Production	5,456.12	1.4%
(6) Aluminum Products Production	3,713.56	1.0%
(7) Chemicals	2,652.30	0.7%
(8) All Others	9,055.93	3.2%
Total:	379,938.70	

Top Point Emission Sources for VOCs	Tons of VOCs contributed by these sources in 2001	Percent of total
(1) Charcoal Production	6,096.22	17.1%
(2) Motor Vehicle Production	5,214.57	14.6%
(3) Aluminum Products Production	2,036.14	5.7%
(4) Cement Production	1,980.83	5.5%
(5) Electricity Generation	1,522.24	4.3%
(6) Plastics Production	1,476.41	4.1%
(7) All Others	17,387.57	48.7%
Total:	35,714.28	

Top Point Emission Sources for NO _x	Tons of NO _x contributed by these sources in 2001	Percent of total
(1) Electricity Generation	150,434.97	79.6%
(2) Cement Production	15,371.01	8.1%
(3) Lime Production	4,182.33	2.2%
(4) Oil and Gas Pipelines	3,831.99	2.0%
(5) Wire Production	2,359.97	1.2%
(6) Beer Production	1,484.40	0.8%
(7) All Others	11,338.28	6.0%
Total:	189,002.95	

